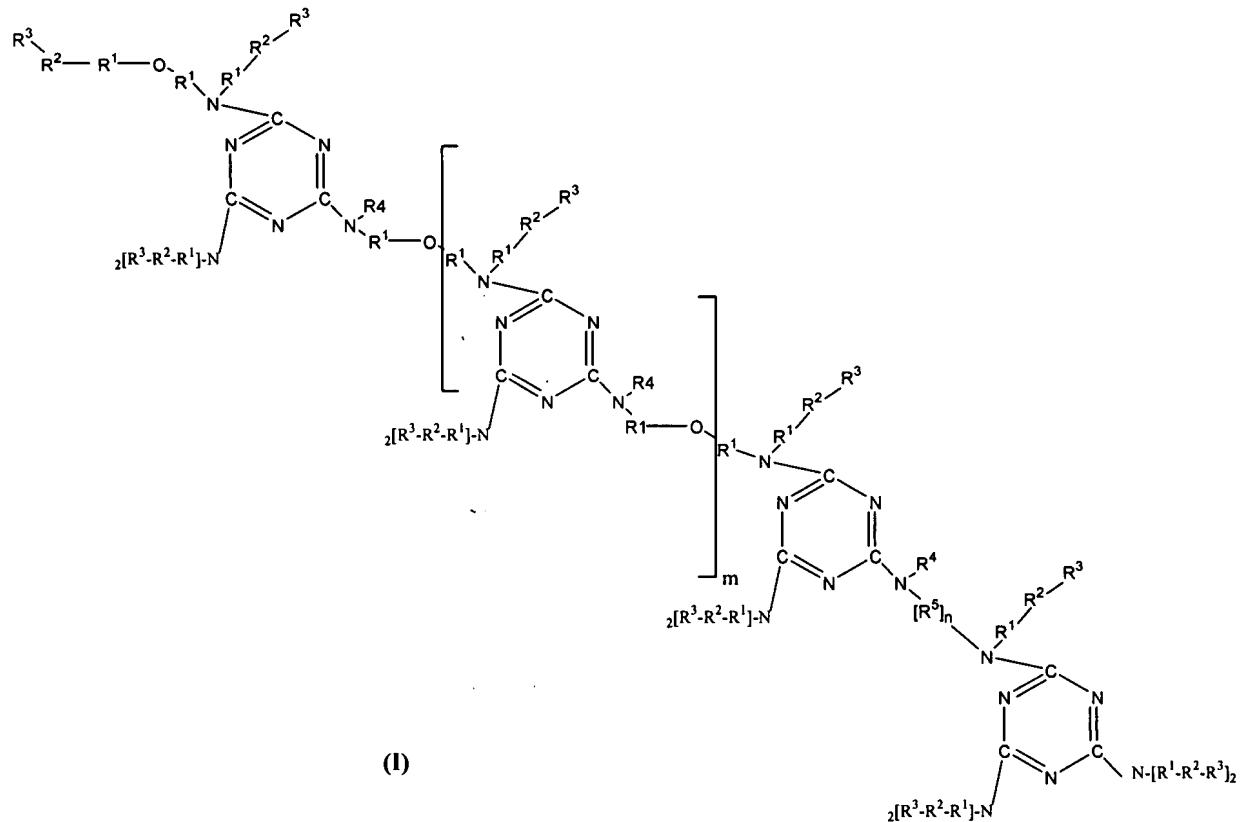


**Amendments to and Listing of the Claims:**

Please amend Claims 1, 7, 14 and 22 cancel Claims 32-44 without prejudice to the filing of one or more divisional applications.

1. (currently amended) A melamine ring-containing co-polymer of formula (I)



wherein m is an integer of 1 to 100;

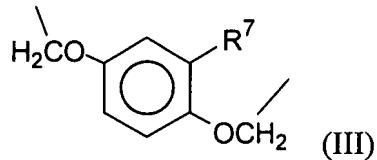
R<sup>1</sup> is independently selected from the group consisting of an-alkyl group groups having one to twenty carbon atoms;

R<sup>2</sup> is independently selected from the group consisting of an oxygen atom and a sulfur atom;

R<sup>3</sup> is independently selected from the group consisting of an alkyl group, an allyl group, an alkynyl group, an aryl group, and a phenyl group, having one to seventy carbon atoms;

$R^4$  is independently selected from the group consisting of  $-C_pH_{2p}OH$ ;  $-C_pH_{2p-1}OH$ ;  $-C_pH_{2p-2}OH$ , wherein p is an integer of one to seven; a hydrogen atom; a carboxyl group, an alkyl group; an allyl group; and an alkynyl group;

$R^5$  is independently selected from the group consisting of an alkyl group, an alkyl group containing at least one ether linkage, and the group represented by the formula (III):



wherein  $R^7$  is independently a C<sub>10</sub>-C<sub>40</sub> branched or unbranched, substituted or unsubstituted alkyl, allyl, or alkynyl group, and;

n is an integer of one to thirty;

wherein the melamine ring-containing co-polymer is the reaction product of at least one melamine base resin and at least one reactant compound, wherein the at least one reactant compound comprises a cashew nut shell liquid and has at least one functional group selected from a carboxyl group, a hydroxyl group, a thiol group and combinations thereof.

2. (previously presented) The co-polymer of claim 1, wherein the cashew nut shell liquid comprises cardanol and cardol.

3. (previously presented) The co-polymer of claim 1, wherein the at least one reactant compound further comprises a fatty acid.

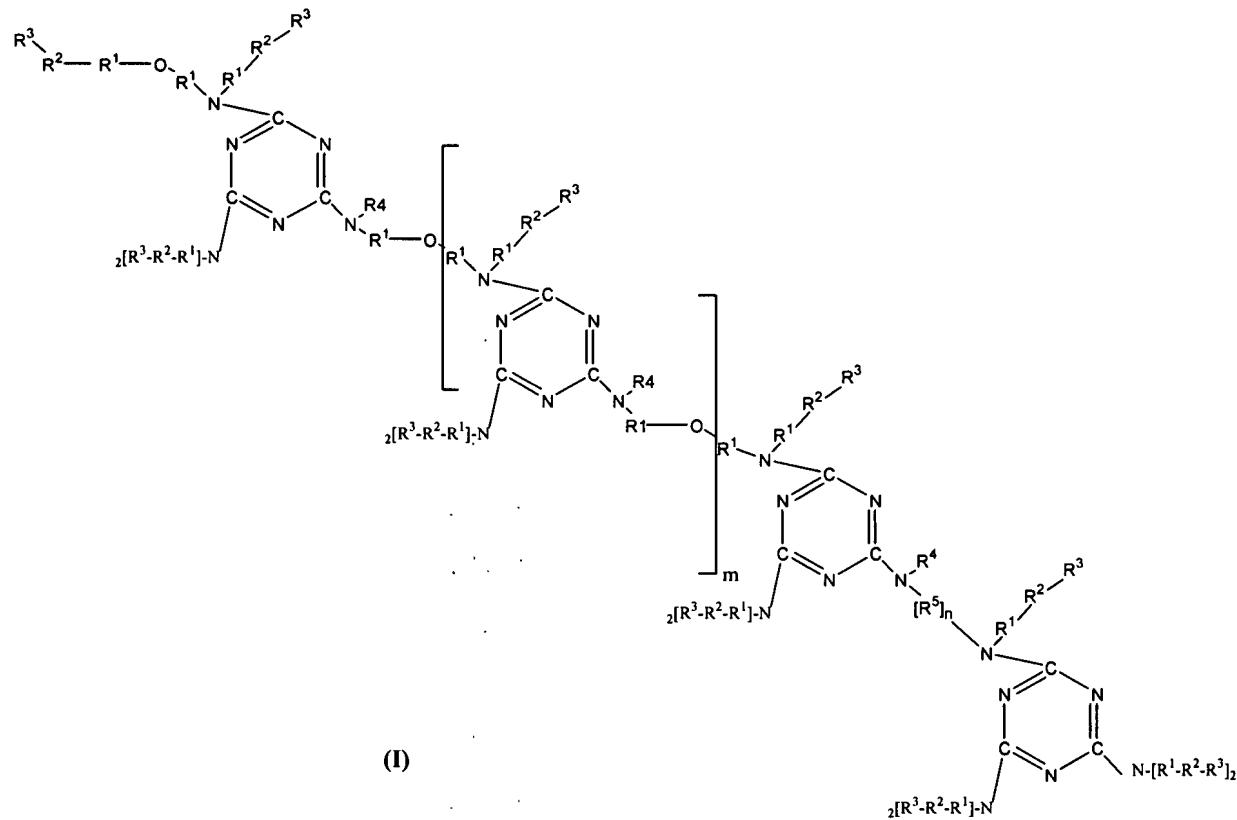
4. (previously presented) The co-polymer of claim 3, wherein the fatty acid is selected from the group consisting of lauric acid, myristic acid, palmitic acid, stearic acid, arachidic acid, palmitoleic acid, oleic acid, ricinoleic acid, linoleic acid, arachidonic acid, and combinations thereof.

5. (previously presented) The co-polymer of claim 1, wherein the at least one reactant compound further comprises at least one compound which is selected from the group consisting

of dodecyl mercaptan, phenyl mercaptan, lauryl thioglycolate, octyl thioglycolate, and mixtures thereof.

6. (previously presented) The co-polymer of claim 1, wherein the at least one melamine base resin is modified or unmodified and is selected from the group consisting of a melamine resin, a melamine-formaldehyde resin, a melamine-urea-formaldehyde resin, methylated melamine formaldehyde, and combinations thereof.

7. (currently amended) A melamine ring-containing co-polymer of formula (I):



wherein m is an integer of 1 to 100;

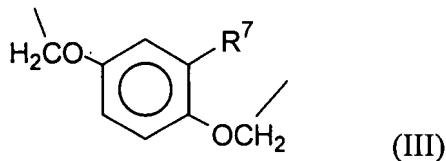
$R^1$  is independently selected from the group consisting of an alkyl group groups having one to twenty carbon atoms;

$R^2$  is independently selected from the group consisting of an oxygen atom and a sulfur atom;

$R^3$  is independently selected from the group consisting of an alkyl group, an allyl group, an alkynyl group, an aryl group, and a phenyl group, having one to seventy carbon atoms;

$R^4$  is independently selected from the group consisting of  $-C_pH_{2p}OH$ ;  $-C_pH_{2p-1}OH$ ;  $-C_pH_{2p-2}OH$ , wherein p is an integer of one to seven; a hydrogen atom; a carboxyl group, an alkyl group; an allyl group; and an alkynyl group;

$R^5$  is independently selected from the group consisting of an alkyl group, an alkyl group containing at least one ether linkage, and the group represented by the formula (III):



wherein  $R^7$  is independently a C<sub>10</sub>-C<sub>40</sub> branched or unbranched, substituted or unsubstituted alkyl, allyl, or alkynyl group, and;

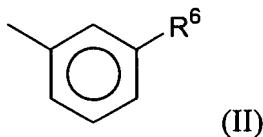
n is an integer of one to thirty.

8. (previously presented) The co-polymer of claim 7, wherein  $R^1$  is independently selected from the group consisting of an alkyl group having two to seven carbon atoms.

9. (previously presented) The co-polymer of claim 7, wherein at least one of  $R^3$  is independently selected from the group consisting of an alkyl group, an allyl group, an alkynyl group, an aryl group, and a phenyl group having thirty to sixty carbon atoms.

10. (previously presented) The co-polymer of claim 7, wherein at least one of  $R^3$  is independently selected from the group consisting of an alkyl group, an allyl group, an alkynyl group, an aryl group, and a phenyl group having six to twelve carbon atoms.

11. (previously presented) The co-polymer of claim 7, wherein at least one  $R^3$  is a structure represented by the formula (II):



wherein R<sup>6</sup> is independently selected from the group consisting of an alkyl group, an allyl group, and an alkynyl group having ten to forty carbon atoms.

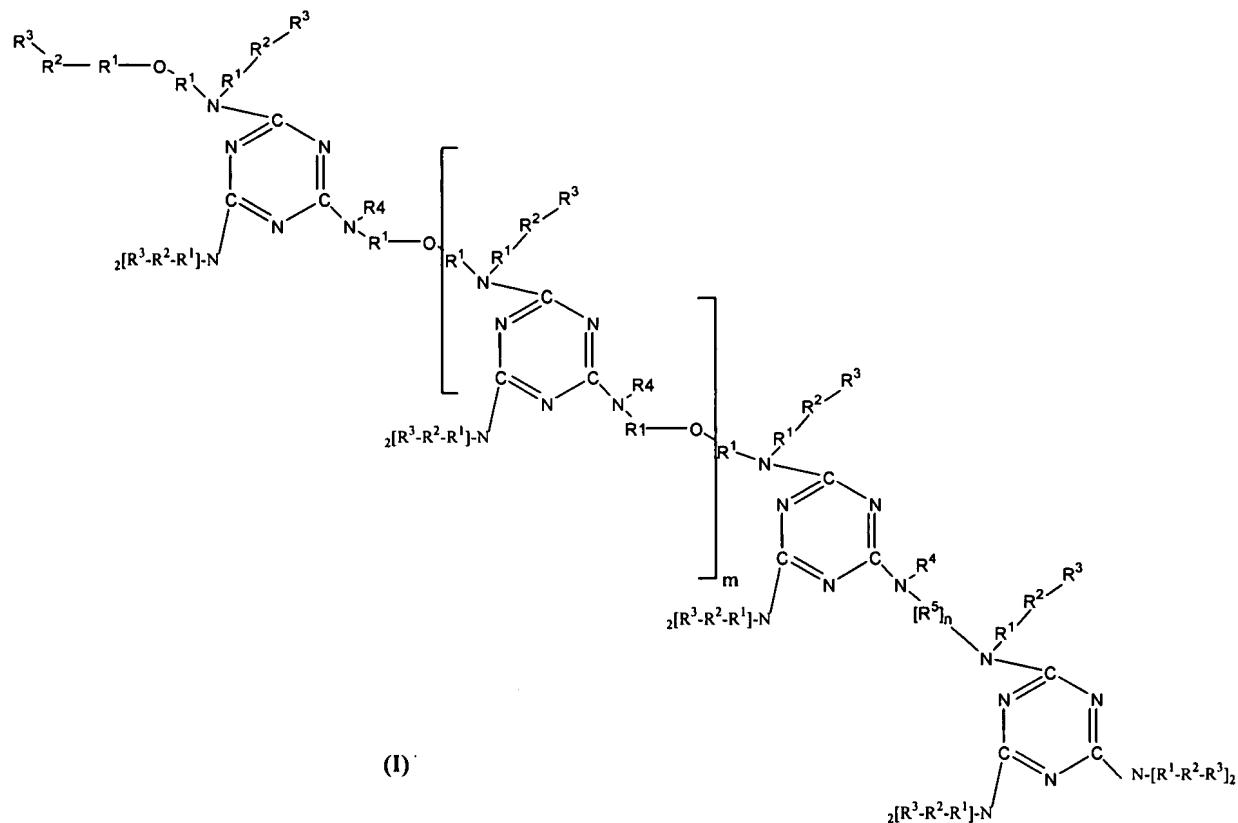
12. (previously presented) The co-polymer of claim 11, wherein R<sup>6</sup> is independently selected from the group consisting of an alkyl group, an allyl group, and an alkynyl group having fifteen to thirty carbon atoms.

13. (previously presented) The co-polymer of claim 11, wherein R<sup>6</sup> is independently selected from the group consisting of -(CH<sub>2</sub>)<sub>7</sub>CH = CH-(CH<sub>2</sub>)<sub>5</sub>CH<sub>3</sub>; -(CH<sub>2</sub>)<sub>7</sub>CH = CHCH<sub>2</sub>CH = CH(CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub>; -(CH<sub>2</sub>)<sub>7</sub>CH = CHCH<sub>2</sub>CH = CHCH<sub>2</sub>CH=CH<sub>2</sub>; and -(CH<sub>2</sub>)<sub>14</sub>CH<sub>3</sub>.

14. (currently amended) A method of preparing a melamine ring-containing co-polymer comprising:

reacting at least one melamine base resin with at least one reactant compound;

wherein the reactant compound comprises cashew nut shell liquid and has at least one functional group selected from a carboxyl group, a hydroxyl group, a thiol group and combinations thereof, wherein the copolymer has formula (I):



wherein m is an integer of 1 to 100;

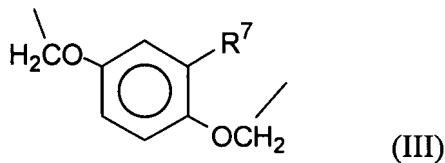
R<sup>1</sup> is independently selected from the group consisting of an alkyl group having one to twenty carbon atoms;

R<sup>2</sup> is independently selected from the group consisting of an oxygen atom and a sulfur atom;

R<sup>3</sup> is independently selected from the group consisting of an alkyl group, an allyl group, an alkynyl group, an aryl group, and a phenyl group, having one to seventy carbon atoms;

R<sup>4</sup> is independently selected from the group consisting of -C<sub>p</sub>H<sub>2p</sub>OH; -C<sub>p</sub>H<sub>2p-1</sub>OH; -C<sub>p</sub>H<sub>2p-2</sub>OH, wherein p is an integer of one to seven; a hydrogen atom; a carboxyl group, an alkyl group; an allyl group; and an alkynyl group;

$R^5$  is independently selected from the group consisting of an alkyl group, an alkyl group containing at least one ether linkage, and the group represented by the formula (III):



wherein  $R^7$  is independently a C<sub>10</sub>-C<sub>40</sub> branched or unbranched, substituted or unsubstituted alkyl, allyl, or alkynyl group, and;

$n$  is an integer of one to thirty.

15. (previously presented) The method of claim 14, wherein the reaction is carried out in the presence of a proton-donating catalyst.

16. (previously presented) The method of claim 15, wherein the catalyst is a sulfo radical containing catalyst.

17. (previously presented) The method of claim 15, wherein the catalyst is selected from the group consisting of methanesulfonic acid, phosphoric acid, nitric acid, oxalic acid, maleic acid, hexamic acid, phthalic acid, acrylic acid, para-toluene sulfonic acid, dinonyl naphthalene sulfonic acid, magnesium bromide, zinc nitrate, aluminum nitrate, magnesium nitrate, and combinations thereof.

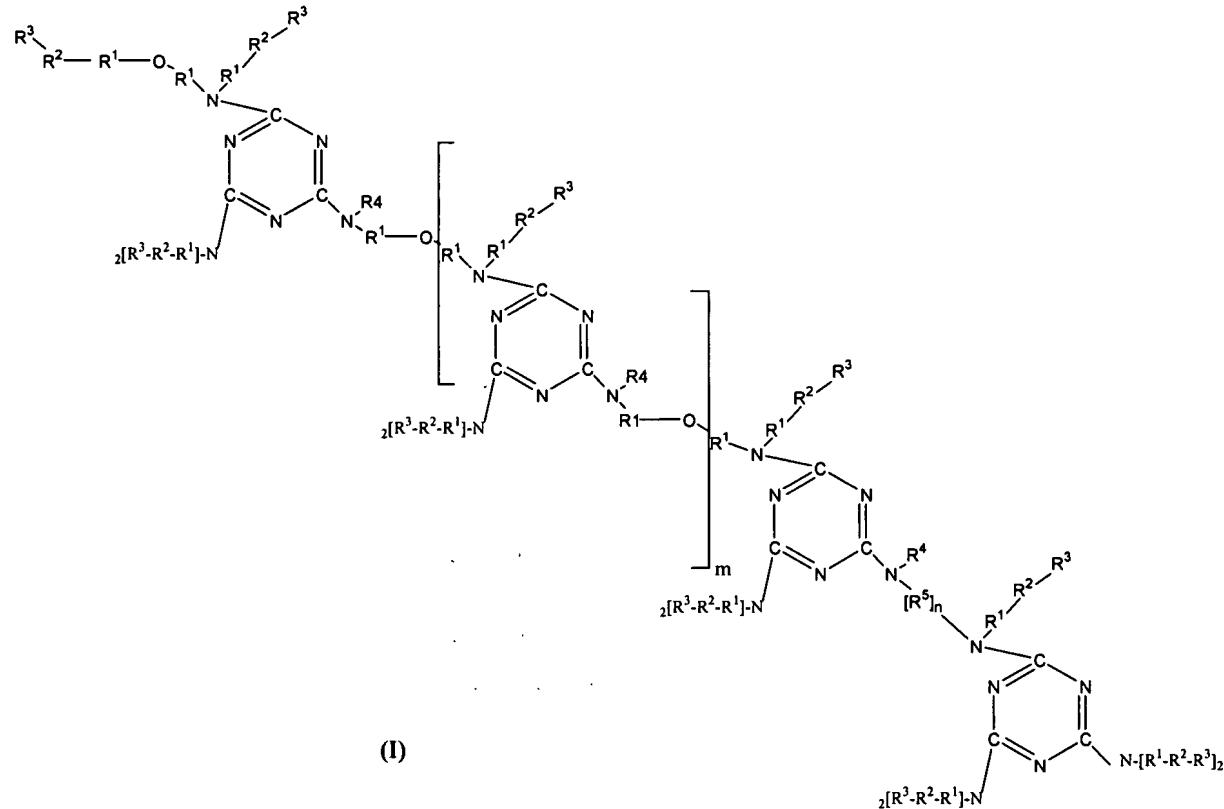
18. (previously presented) The method of claim 14, wherein the at least one reactant compound comprises cardol and cardanol.

19. (previously presented) The method of claim 14, wherein the at least one reactant compound comprises a fatty acid.

20. (previously presented) The method of claim 19, wherein the fatty acid is selected from the group consisting of lauric acid, myristic acid, palmitic acid, stearic acid, arachidic acid, palmitoleic acid, oleic acid, ricinoleic acid, linoleic acid, arachidonic acid, and combinations thereof.

21. (previously presented) The method of claim 14, wherein the at least one base melamine base resin is modified or unmodified and is selected from the group consisting of a melamine resin, a melamine-formaldehyde resin, a melamine-urea-formaldehyde resin, methylated melamine formaldehyde, and combinations thereof.

22. (currently amended) A surface having a coating, wherein the coating comprises a melamine ring-containing co-polymer having the structure of formula (I):



wherein m is an integer of 1 to 100;

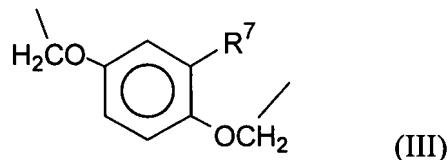
$R^1$  is independently selected from the group consisting of an alkyl group having one to twenty carbon atoms;

$R^2$  is independently selected from the group consisting of an oxygen atom and a sulfur atom;

$R^3$  is independently selected from the group consisting of an alkyl group, an allyl group, an alkynyl group, an aryl group, and a phenyl group, having one to seventy carbon atoms;

$R^4$  is independently selected from the group consisting of  $-C_pH_{2p}OH$ ;  $-C_pH_{2p-1}OH$ ;  $-C_pH_{2p-2}OH$ , wherein p is an integer of one to seven; a hydrogen atom; a carboxyl group, an alkyl group; an allyl group; and an alkynyl group;

$R^5$  is independently selected from the group consisting of an alkyl group, an alkyl group containing at least one ether linkage, and the group represented by the formula (III):



wherein  $R^7$  is independently a C<sub>10</sub>-C<sub>40</sub> branched or unbranched, substituted or unsubstituted alkyl, allyl, or alkynyl group, and;

n is an integer of one to thirty.

23. (previously presented) A melamine ring containing co-polymer that is a reaction product of a cashew nut shell liquid and at least one melamine-formaldehyde resin wherein the cashew nutshell liquid comprises cardanol and cardol, and wherein the cardanol is present in an amount ranging from about 80% to about 100% by weight of the cashew nut shell liquid and the cardol is present in an amount ranging from about 1% to about 20% by weight of the cashew nut shell liquid.

24. (previously presented) The melamine ring containing co-polymer of claim 23, wherein the reaction is carried out in the presence of a proton-donating catalyst.

25. (previously presented) The melamine ring containing co-polymer of claim 23, wherein the at least one melamine resin comprises a methylated melamine formaldehyde resin.

26. (previously presented) The method of claim 23, wherein the cashew nutshell liquid is in the form of a cashew nut shell liquid distillate.

27. (previously presented) The copolymer of claim 1, wherein the at least one melamine base resin is a methylated melamine formaldehyde resin.

28. (previously presented) The melamine ring containing co-polymer of claim 1, wherein the cashew nutshell liquid comprises cardanol and cardol, and wherein the cardanol is present in an amount ranging from about 80% to about 100% by weight of the cashew nut shell liquid and the cardol is present in an amount ranging from about 1% to about 20% by weight of the cashew nut shell liquid.

29. (previously presented) The melamine ring containing co-polymer of Claim 28 that is a reaction product of a cashew nut shell liquid and at least one melamine-formaldehyde resin, wherein the cashew nutshell liquid comprises cardanol and cardol, and wherein the cardanol is present in an amount ranging from about 96% to about 98% by weight of the cashew nut shell liquid and the cardol is present in an amount ranging from about 2% to about 4% by weight of the cashew nut shell liquid.

30. (previously presented) The co-polymer of claim 23, wherein the cardanol is present in an amount ranging from about 96% to about 98% by weight of the cashew nut shell liquid and the cardol is present in an amount ranging from about 2% to about 4% by weight of the cashew nut shell liquid.